# **Basic Router Configuration Using Cisco Configuration Professional**

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### **Related Information**

## Introduction

This document describes how to use the Cisco Configuration Professional (Cisco CP) in order to set the basic configuration of the router. This includes the configuration of the IP address, default routing, static and dynamic routing, static and dynamic NATing, hostname, banner, secret password, user accounts, and so forth. Cisco CP allows you to configure your router in all kinds of network environments that includes small office home office (SOHO), branch office (BO), regional office, and central site or Enterprise headquarters using an easy–to–use web–based management interface.

# Prerequisites

## **Components Used**

The information in this document is based on these software and hardware versions:

- Cisco 2811 Router with Cisco IOS® Software Release 12.4(9)
- Cisco CP Version 2.1

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

## **Install Cisco Configuration Professional**

Perform these steps in order to install CCP:

1. Download Cisco CP V2.1 from the Cisco Software Center (registered customers only) and install it on your local PC.

The latest version of Cisco CP can be found at the CCP website.

2. Launch Cisco CP from your local PC through **Start** > **Programs** > **Cisco Configuration Professional** and choose the **Community** which has the router you want to configure.



Home       Configure       Hometer       Resident       Cisco Configure         Select Community       Manage Devices       Image Devices	onfigu
Alanage Devices  Alanag	ي ،
Community Community Enter information for up to 5 devices for the selected community IP Address/Hisstname Username Password Cennect Securely 1. Router cisco	
	ely
Discover all devices	ancel

3. In order to discover the device you want to configure, highlight the router and click the **Discover** button.

Application Help		
Home Sconfigure	Monitor 8	👬 🙆 🥹 Cisco
Select Community Memberi	Home > Commun	nity View
the distances (inclusion of the line)	Cisco Configur	aration Professional News
Community View	Date	Title
	24-May-2010	<b>Cisco Configuration Professional</b>
	24-May-2010	Simplify ISR & ISR 62 deployment
	24-May-2010	Provide CCP Feedback
	Community Info	ann allan
	Selected Commu	unity: New Community .Select a device from
	Pisitar	
	IP address / Ho	lostname Router Hostname
	Router	
	-	
	Hanage Devic	res Delete Discover

**Note:** For information on the Cisco router models and IOS releases that are compatible to CCPv2.1, refer to the Compatible Cisco IOS releases section.

Note: For information on the PC requirements that runs CCPv2.1, refer to System Requirements section

## **Router Configuration to Run Cisco CP**

Perform these configuration steps in order to run Cisco CP on a Cisco router:

1. Connect to your router using Telnet, SSH, or through the console.

Enter global configuration mode using this command:

Router(config)#**enable** Router(config)#

2. If HTTP and HTTPS are enabled and configured to use nonstandard port numbers, you can skip this step and simply use the port number already configured.

Enable the router HTTP or HTTPS server using these Cisco IOS Software commands:

Router(config)# ip http server Router(config)# ip http secure-server Router(config)# ip http authentication local 3. Create a user with privilege level 15:

Router(config)# username <username> privilege 15 password 0 <password>

Note: Replace *<username>* and *<password>* with the username and password that you want to configure. Do not use the same password for your user and enable passwords.
4. Configure SSH and Telnet for local login and privilege level 15.

Router(config)# line vty 0 4
Router(config-line)# privilege level 15
Router(config-line)# login local
Router(config-line)# transport input telnet
Router(config-line)# transport input telnet ssh
Router(config-line)# exit

5. (Optional) Enable local logging to support the log monitoring function:

Router(config)# logging buffered 51200 warning

### Requirements

This document assumes that the Cisco router is fully operational and configured to allow the Cisco CP to make configuration changes.

For complete information on how to start using the Cisco CP, refer to Getting Started with Cisco Configuration Professional.

### Conventions

Refer to the Cisco Technical Tips Conventions for more information on document conventions.

# Configure

In this section, you are presented with the information to configure the basic settings for a router in a network.

**Note:** Use the Command Lookup Tool (registered customers only) to obtain more information on the commands used in this section.

## **Network Diagram**

This document uses this network setup:



**Note:** The IP addressing schemes used in this configuration are not legally routable on the Internet. They are RFC 1918 addresses which have been used in a lab environment.

## **Interface Configuration**

Perform these steps in order to configure the interfaces of a Cisco router:

1. Click **Home** in order to go to the Cisco CP homepage.

The Cisco CP homepage provides information such as the hardware and software of the router, feature availability, and a configuration summary.

House 🥸 Configure 🙀 Honsto	-   🔆 应	0		Cisco Con	figuration P	rofessiona
Salati tu mininty Maribar: 192.006.011   v   44	Memilton & Routher &	Uverview				
	Mariha Overview					Updale
erer Geografi	🔯 Basa rea Si	ariir				
In ten ace status	CPU Usage:	AN.	Memory Usages	tila: Assi scoil	sh Usage: ddwTrib: (last - 217)	481
Locarg					iblericle lissr. (.i)	410
Top 1 Tral is Flore	The Interface St.	atina				_
Application/Protocol Traffic	Total Interface(s	a Un:		Total Interface(s) Down:		6
ons fort e Fortomonec Routing	Interfa	ie IP	Status	Bandwidth Usage	Description	
cunty	FasiEthernei01	i 190 frak 1-1 nu ju averesa	G Juan	C %		-
	4					1
	🕵 Herewall Stat	ti <i>u</i> s		😰 Q65		
	Ho, of Attempts I	Deniedt	)	No. of QoS Enabled Interfa	ces:	0
	Firewall Logo		kc.Configured			

2. Choose **Configure** > **Interface Management** > **Interfaces and Connections** > **Create Connection** in order to configure the WAN connection for the interface.

As an example, for FastEthernet 0/1, choose the **Ethernet** option and click **Create New Connection**.

**Note:** For other types of interfaces like **Ethernet**, choose the respective interface type and click **Create New Connection** to proceed.

The Interface Management
Interface and Connections
Router
Router Options
▶ 🔁 Time
🕨 🧰 Router Access
DNS
Static and Dynamic Routing
NAT
SNMP
Logging
🕨 🚞 Advanced Router
🕨 🧰 Security
▶ 🚞 Voice
▶ 🧰 Utilities



3. Click **Next** in order to proceed once this interface appears:



4. Choose FastEthernet 0/1 (desired) from the Available Interfaces option and click Next.



5. Specify the static IP address with the corresponding subnet mask for the interface and click Next.

Ethernet Wizard - FastEth	ernet0/1
WAN Wizard	IP address Enter the IP address for this connection
	Static IP address IP address: 172.161.1 Subject mask: 255.255.255.0 or 24  Opynamic (DHCP Client) Hostname: (Optional)
	You can configure this interface to perform dynamic DNE updates by checking the checktux below.
	< Back Next> Finish Cancel Help

6. Configure the default routing with optional parameters such as the next hop IP address (172.16.1.2 as per network diagram) supplied by the ISP and click **Next**.

Ethernet Wizard - FastEth	ernet0/1	×
WAN Wizard	Advanced Options	
	There is no static route configured on the router. A default static route ensures that outgoing traffic will always be sent to another router on the network	
15	Default Static Route	
	Ose this Interface as Forwarding Interface     Noxt Hop IP address     (If your ISP has given you a next hop IP address enter it here)	
Pier	PAT is not configured on any router interface. Configuring PAT allows multiple devices on the LAN to share this WAN connection	
	Port Address Transition	
	LAW Interface to be translated - astEthernetL/L	
	< Back Next> Einish Cancel He	ılp 🛛

This window appears and shows the configuration summary configured by the user. Click Finish.

**Note:** The connectivity of the configuration can be checked by checking the checkbox next to **Test the connectivity after configuring**. This is an optional feature available.



This window appears and shows the command delivery status to the router. Otherwise, it displays errors if the command delivery fails due to incompatible commands or unsupported features.

Commands Delivery Status	
Command Delivery Status:	
Preparing commands for delivery Submitting 6 commands, please wait Configuration delivered to router. 	~
<u>&lt;</u>	>
ок	

7. Choose Configure > Interface Management > Interfaces and Connections > Edit Interfaces/Connections in order to add/edit/delete the various interfaces.

V 🔄 Interface Management	_
Interface and Connections	
🔻 🚞 Router	
Router Options	
🕨 🧰 Time	
Router Access	
▶ 🧰 рнср	
DNS	
Static and Dynamic Routing	
NAT NAT	
SNMP	
Logging	
🕨 🧰 Advanced Router	
▶ 🧰 Security	
▶ 🧰 Voice	

, Interfaces and	d Connections				
Create Connection	dit Interface/Connectio	n			
ď	Edit 👍 Add 🔹 🎁 De	lete 🔲 Summary 🛛 💐 Def	tails 🔏	Test Conn	ection
Interface	IP	Туре	Slot	Status	Des
FastEthernet0/0	192.168.1.1	10/100Ethernet	0	OUp	
FastEthernet0/1	172.16.1.1	10/100Ethernet	0	🕒 Up	
FastEthernet0/3/0	not applicable	Ethernet Switch Port	0	🕒 Up	
FastEthernet0/3/1	not applicable	Ethernet Switch Port	0	🕒 Up	
FastEthernet0/3/2	not applicable	Ethernet Switch Port	0	🕒 Up	
FastEthernet0/3/3	not applicable	Ethernet Switch Port	0	🕒 Up	
Vlan1	no IP address	Vlan		🕒 Up	

Highlight the interface with which you want to make changes and click **Edit** if you want to edit or change the interface configuration. Here, you can change the existing static IP address.

Interface Feature Edit Dialog -FastEthernet0/1
Connection Association NAT General Application Service
IP address Static IP address 🛛 🖌
IP address: 172.16.1.1
Subnet mask: 255.255.255.0 or 24
Dynamic DNS Method:
OK Cancel Help

## **NAT Configuration**

#### **Dynamic NAT Configuration**

Perform these steps in order to configure the dynamic NAT in a Cisco router:

1. Choose **Configure** > **Router** > **NAT** > **Basic NAT** and click **Launch the selected task** in order to configure basic NATing.



2. Click Next.



3. Choose the interface that connects to the Internet or your ISP and choose the IP address range to which Internet access is to be shared. After choosing this information, click **Next** as shown here:

Basic NAT Wizard			
NAT Wizard Network Address Translation	Sharing the Internat Connection If this router has a connection to the Inter on the LAN to share this connection.	met specify how you w	vant PCs and hosts
	Choose the interface that connects to the FastEthernet0/1	e Internet or your Intern	etservice provider:
EP:14/2         Ta:           102168/200 156         241.024.7           102168/200 157         241.024.7           102168/200 157         241.024.7           102167/200 166         21.024.6           10147/200 166         21.024.6	the following ranges of IP addresses ar to the router. Check the box next to each that you specified.	a liocated to network network that is to shar	e the connection
16630 2021 24110 4-8	IP adcress range	Connected Through	Comment
	✓ 192.168.1.0 to 192.168.1.255	FactEthernet0/0	
	T 172.16.1.0 to 172.16.1.255	FastEthernet0/1	
	Note: To configure NATion an interface n Edit NAT Configuration, and uncheck tha window. For details see help.	narked as Designated t interface in the Desig	, exitithis wizard, click jnate NAT interfaces
	<	Back Next > Finis	h Cancel Help

4. This window appears and shows the configuration summary configured by the user. Click Finish.



5. The Edit NAT Configuration window shows the configured dynamic NAT configuration with the translated IP address overloaded (PATing). If you want to configure the dynamic NATing with address pool, click **Address Pool**.

Create NAT Configuration Edit NAT Co	onfiguration		
Designate NAT interfaces		Addrass Pocl	Translation Timeputs
Network Address Translation Ru	les		
Inside Interface(s): FastEther	ne:0/0		
Outside Intelface(s): FastEthen	ne:0/1		
Ordering and and design	-		-
Unginal address	Trans ated address	Rule Type	Add
192.168.1.0-192.158.1.255	172.16.1.1	Dynamic	Add
Unginal address 192.168.1.0-192.158.1.255	172.10.1.1	Dynamic	Add
Unginal address 192.168.1.0-192.158.1.255	172.10.1.1	Dynarnic	Ecit Delcte

#### 6. Click Add.

A	ddre	ss Pools				
Address Pools are used to configure Dynamic Network Address Translation addresses.						
		Pool Name	Address			
				Add		
				Edit		
				Delete		
	Clone selected Entry on Add					
		01	K Cancel Help			

Here, information such as the pool name and IP address range with netmask are provided. There can be times when most of the addresses in the pool have been assigned, and the IP address pool is nearly depleted. When this occurs, PAT can be used with a single IP address in order to satisfy additional requests for IP addresses. Check **Port Address Translation (PAT)** if you want the router to use PAT when the address pool is close to depletion. Click **OK**.

Add Address Pool	×
Pool Name: pool	
✓ Port Address Translation(PAT)	
IP address: 10.10.10.1 10.10.10.10	
Network Mask: 255.255.255.0 or 24	
OK Cancel Help	



8. Click Edit.

Create NAT Configuration Edit NAT Config	uration		
Designate NAT Interfaces		Address Pool	Translation Timeouts
Nework Andreas Translation Rules –			
Inside Interface(s) FastEthernet®	ı		
Outside Interface(s): FastEthernet0/	I		
Original address	Translated address	Rule Type	bEA
197 163 1 1619 2 168 1 255	1721611	Liynam c	Edit
			Delete
			View Route MAP

9. Choose Address Pool in the Type field, provide the name to the Address Pool as pool, and click OK.

it Address Translation Ru	le
C Static C Dynam	nic
Direction: From inside	to outside 🕑
Translate from interfa	ice
Inside Interface(s):	FastEthernet0/0
ACL Rule:	1 T
Translate to interface	
Outside Interface(s):	FastEthernet0/1
Туре:	Address Pool 💌
Interface:	Interface Address Pool
Address Pool:	7 T

10. This window shows the configuration for dynamic NATing with the address pool. Click **Designate NAT Interfaces**.

Create NAT Co	Infiguration	Edit NAT Configu	ration			
Designate	NAT Interface:	5		Address	s Puul	Translation Timeouls
Network	(Address Trai	ns ation Rules—				
Inside Int	terface(s).	FasiEthernet0/0				
Outside I	nterface(s).	FasiEthernet0/1				
Ur(	ginal address .168.1.0-192.1	138.1.255	Translated address 10.10.10.11.10.10.10	Rule Cynar	Туре m c	Add
						Ecit
						Delete
						View Route MAP

Use this window in order to designate the inside and outside interfaces that you want to use in NAT translations. NAT uses the inside and outside designations when it interprets translation rules, because translations are performed from inside to outside, or from outside to inside.

Once designated, these interfaces are used in all NAT translation rules. The designated interfaces appear above the Translation Rules list in the main NAT window.

NAT Interface Setting								
Select the list of interfaces that you want to designate as inside / outside.								
	interface	inside(trusted)	outside(untruste					
Fa	astEthernet0/0	▼						
Fa	astEthernet0/1		<b>v</b>					
<								
	OK	Cancel	Help					

#### **Static NAT Configuration**

Perform these steps in order to configure static NAT in a Cisco router:

1. Choose **Configure** > **Router** > **NAT** > **Edit NAT Configuration** and click **Add** in order to configure static NATing.

Create NAT Configuration Edit NAT Configuration	ation		
Designate NAT Interfaces)	1	Address Pocl	Translation Timeouts
Inside Interface(s): FastEthernetU/U			
Outsice Interface(s): FastEthemet0/1			
Original address	Translated address	Rule Type	Add
			F-1it
			Deleta

- 2. Choose the **Direction** either from inside to outside or from outside to inside, and specify the inside IP address to be translated under **Translate from Interface**. For the **Translate to Interface** area, choose the Type:
  - Choose **IP Address** if you want the **Translate from Address** to be translated to an IP address defined in the IP Address field.
  - Choose **Interface** if you want the **Translate from Address** to use the address of an interface on the router. The **Translate from Address** is translated to the IP address assigned to the interface that you specify in the Interface field.

Check **Redirect Port** if you want to include port information for the inside device in the translation. This enables you to use the same public IP address for multiple devices, as long as the port specified for each device is different. You must create an entry for each port mapping for this Translated to address. Click **TCP** if this is a TCP port number and click **UDP** if it is a UDP port number. In the Original Port field, enter the port number on the inside device. In the Translated Port field, enter the

port number that the router is to use for this translation. Refer to the Allowing the Internet to Access Internal Devices section of Configuring Network Address Translation: Getting Started.

Add Address Translation Rule	×
Static C Dynamic     Direction: From inside to outside     Translate from interface	
Inside Interface(s): FastEthernet0/0 IP address: 10.10.10.1 Network Mask(optional): or	
Translate to interface         Outside Interface(s):       FastEthernet0/1         Type:       IP address         Interface:       FastEthernet0/0	
IP address: 172.16.1.1	
Original Port: 8080 Translated Port: 80 OK Cancel Help	

This window shows the static NATing configuration with port redirection enabled:

Preato NAT Configuration Edit NAT Conf	iguration		
Designate NAT Intelfaces		Acdress Pool	Translation Timeouts
Network Acdress Translation Rules			
Inside Interface(s): FastEthernet	0′0		
Cutside Interface(s): East-thernet	11/1		
Ori <u>c</u> inal accress	Translated address	Rule Type	Add
10.1010.1 (8080)	172.16.1.1 (80)	Static	
			Edit
			Edit

## **Routing Configuration**

#### **Static Routing Configuration**

Perform these steps in order to configure static routing in a Cisco router:

1. Choose **Configure** > **Router** > **Static and Dynamic Routing** and click **Add** in order to configure static routing.

interface and Connections	Ctatic Routing	]		Add
Router Options	Destination M	letwork	Forwarding	
▶ 🤷 Time	Prefix	Pretix Mask	Interace or IP address	
Router Access				
DNS				
Static and Dynamic Routing				
SHMP	٩			

2. Enter the Destination Network address with mask and choose either outgoing interface or next hop IP address.

Add IP Static Route	×				
Destination Network					
Prefix:	10.1.1.0				
Prefix Mask:	255.255.255.0				
🗖 Make this as the default route	)				
Forwarding( Next Hop )					
C Interface:	FastEthernet0/0 😼				
IP Address:	172.16.1.2				
Optional					
Distance metric for this route:	1				
Permanent route					
OK	Help				

This window shows the static route configured for the 10.1.1.0 network with 172.16.1.2 as the next hop IP address:

Static Routing			Add	Edit	Delete	elete All
Destination Network	(	Fhrwarding		Optional		
-'refix	Pretix Mask	Interface or IP address		Distance	Permanent Route	Irac
10.1.1.0	255.255.255.0	172.16.1.2		1	Nu	None
<		III				>

#### **Dynamic Routing Configuration**

Perform these steps in order to configure the dynamic routing in a Cisco router:

- 1. Choose **Configure** > **Router** > **Static and Dynamic Routing**.
- 2. Select the **RIP** and click **Edit**.

•••• Routing						
Static Routing			Acc	Edit	Delete Dele	te All
Destination Network		Forwarding		Optoral		
Prefix	Prefix Mask	Interface or IP address		Distance	Permaner LRoute	Trac
<		Ш				>
Dynamic Routing					Eci	t
tem slame	tem Value					
RIP	Disabled					
osr-	Disabled					
EIGRP	Disabled					

3. Check **Enable RIP**, choose the RIP version, and click **Add**.

dit IP Dynamic Routing	
RIP OSPF EIGRP Finable RIP RIP Version C Version 1 • Version2	C Default
IP Network List	
	Delete
Available Interface List Make the Inte	erface Passive
FastEthernet0/0 FastEthernet0/1	
Vlan1	
OK Cancel	Help

4. Specify the Network address to be advertised.

Add a Network		
Network:		
OK Cancel		

5. Click OK.

lit IP Dynamic Routing	
RIP OSPF EIGRP	
Enable RIP	
RIP Version C Version 1 © Version2	C Default
IP Network List	
192.168.1.0	Add
	Delete
Available Interface List Make the Inter	face Passive
FastEthernet0/0	
FastEthernet0/1	
OK	Help

6. Click **Deliver** in order to transfer the commands to the router.

Deliver Configuration to Router	×			
Deliver delta commands to the router's running config.				
Preview commands that will be delivered to the router's running configuration.				
router rip version 2 no auto-summary network 192.168.1.0 exit				
	~			
The differences between the running configuration and the startup configuration are lost wheneve the router is turned off.	r			
🗖 Save running config. to router's startup config.				
This operation can take several minutes.       Deliver       Cancel       Save to file				

This window shows the dynamic RIP routing configuration:



Dynamic Routing			Edit
Item Name	ltem Value		
RIP	Enabled		
RIP Version Network Passive Interface	Version2 192.168.1.0 None		
OSPF	Disabled	-	
EIGRP	Disabled		

## **Miscellaneous Configuration**

Perform these steps in order to configure the other basic settings in a Cisco router:

1. Choose **Configure** > **Router** > **Router** Options and click **Edit** if you want to change the Hostname, Domain Name, Banner, and Enable Secret Password properties for a router.



2. Choose **Configure** > **Router** Access > User Accounts/View in order to add/edit/delete the User Accounts to the router.



🧃 Additional Tasks	s	
User Accounts/Mew	Add an Account 🛛 🔀	Add F11 Delete
Usemame DCP	Enter the usemame and paseword Username: Paseword	lew Mame Jone×
	New Password. Contimine w Fassword:	
	Privilege Lovo :	
	OK Cancel He p	

3. Choose **Configure > Utilities > Save Running Config to PC** in order to save the configuration to the NVRAM of the router as well as the PC and to reset the current configuration to default (factory) settings.

**Note:** In order to use CCP to restore the configuration file stored on a computer to a router or to backup the configuration file from a router to a computer, access the Configuration Editor, and click **I agree**. In the Configure window, choose **Import configuration from PC**, and then click the **replace running configuration** button.

Select Con multity Meniber: 192.168.1.1  ▼] ↔	Configure > Htilities > Save Running Configuration to PC
Interface Management	You have chosen to save the running configuration to PC Save Running Configuration to PC
▶ 🔄 Route⊨ ▶ 🔄 Geounty	
▶ No ce ▼ Duliliues	
Configuration Editor	
White to Startup Configuration	
V cv	

## **CLI** Configuration

```
Router Configuration
```

```
Router#show run
Building configuration...
Current configuration : 2525 bytes
1
version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
1
hostname Router
1
boot-start-marker
boot-end-marker
1
no logging buffered
enable password cisco
1
no aaa new-model
1
resource policy
1
1
ip cef
1
1
!
!--- RSA certificate generated after you enable the
!--- ip http secure-server command.
crypto pki trustpoint TP-self-signed-2401602417
enrollment selfsigned
subject-name cn=IOS-Self-Signed-Certificate-2401602417
revocation-check none
rsakeypair TP-self-signed-2401602417
crypto pki certificate chain TP-self-signed-2401602417
certificate self-signed 01
 30820248 308201B1 A0030201 02020101 300D0609 2A864886 F70D0101 04050030
 31312F30 2D060355 04031326 494F532D 53656C66 2D536967 6E65642D 43657274
 69666963 6174652D 32343031 36303234 3137301E 170D3130 30353139 30393031
 31315A17 0D323030 31303130 30303030 305A3031 312F302D 06035504 03132649
  4F532D53 656C662D 5369676E 65642D43 65727469 66696361 74652D32 34303136
```

```
30323431 3730819F 300D0609 2A864886 F70D0101 01050003 818D0030 81890281
 8100CD35 A3A6E322 9B6005DA A0FF26C2 8A0DC5AF 27B38F3B DBF2BF58 D8F2655D
 31115681 EC8BC750 03FE3A25 0F79DC74 3A839496 CB9486F1 A1F5BF43 D92BA7AF
 3C72A57B D8D37799 50493588 A5A18F7F 27955AB0 AC36B560 3BE9F648 A4F6F41F
 B9E9C5E6 F9570DEB 5555FDED 9593BD00 5ABB30CD D3B9BDFA F570F987 651652CE
 3D310203 010001A3 70306E30 0F060355 1D130101 FF040530 030101FF 301B0603
 551D1104 14301282 10526F75 7465722E 70616D6D 692E636F 6D301F06 03551D23
 04183016 80146A0A C2100122 EFDA58AB C319820D 98256622 52C5301D 0603551D
 0E041604 146A0AC2 100122EF DA58ABC3 19820D98 25662252 C5300D06 092A8648
 86F70D01 01040500 03818100 83B0EC8C 6916178F 587E15D6 5485A043 E7BB258D
 0C9A63F2 DA18793D CACC026E BC0B9B33 F8A27B34 5BD7DD7F FCECA34F 04662AEC
 07FD7677 A90A8D1C 49042963 C2562FEC 4EFFF17C 360BF88A FEDC7CAA AE308F6C
 A5756C4A F574F5F3 39CE14AE BAAEC655 D5920DD0 DA76E296 B246E36E 16CFBC5A
 00974370 170BBDAD C1594013
       quit
!--- Create a user account named ccpccp with all privileges.
username ccpccp privilege 15 password 0 cisco123
archive
log config
 hidekeys
!--- The LAN interface configured with a private IP address.
interface FastEthernet0/0
description $ETH-LAN$
ip address 192.168.1.1 255.255.255.0
!--- Designate that traffic that originates from behind
!--- the interface is subject to Network Address Translation (NAT).
ip nat inside
ip virtual-reassembly
duplex auto
speed auto
!--- This is the LAN interface configured with a routable (public) IP address.
interface FastEthernet0/1
description $ETH-WAN$
ip address 172.16.1.1 255.255.255.0
!--- Designate that this interface is the
!--- destination for traffic that has undergone NAT.
```

```
ip nat outside
ip virtual-reassembly
duplex auto
speed auto
1
!--- RIP version 2 routing is enabled.
router rip
version 2
network 192.168.1.0
no auto-summary
!--- This is where the commands to enable HTTP and HTTPS are configured.
ip http server
ip http authentication local
ip http secure-server
!--- This configuration is for dynamic NAT.
!--- Define a pool of outside IP addresses for NAT.
ip nat pool pool 10.10.10.1 10.10.10.100 netmask 255.255.255.0
!--- In order to enable NAT of the inside source address,
!--- specify that traffic from hosts that match access list 1
!--- are NATed to the address pool named pool1.
ip nat inside source list 1 pool pool1
!--- Access list 1 permits only 122.168.1.0 network to be NATed.
access-list 1 remark CCP_ACL Category=2
access-list 1 permit 192.168.1.0 0.0.0.255
!--- This configuration is for static NAT
!--- In order to translate the packets between the real IP address 10.10.10.1 with TCP
!--- port 80 and the mapped IP address 172.16.1.1 with TCP port 500.
ip nat outside source static tcp 10.10.10.1 8080 172.16.1.1 80 extendable
1
!
!--- The default route is configured and points to 172.16.1.2.
ip route 0.0.0.0 0.0.0.0 172.16.1.2
```

```
!
!
!
!
control-plane
1
!
!
!
!
!
1
1
!
1
line con 0
line aux 0
!--- Telnet enabled with password as cisco.
line vty 0 4
password cisco
transport input all
line vty 5 15
password cisco
transport input all
!
!
end
```

# Verify

Choose **Configure > Interface & Connections > Edit Interface Connections > Test Connection** in order to test the end–to–end connectivity. You can specify the remote end IP address if you click the **User–specified** radio button.

Connectivity testing and troubleshooting : FastEthernet0/1	×		
IP address / hostname Select a ping option, enter the required value and click Start C Automatically determined by Cisco C User-specified 172.16.1.2			
	1		
🔲 Summary 🛛 📓 Details			
Activity       Information       Iss         Checking inter       Checking inter       p       uccessful         Checking exit in       Pinging to dest       Test Connection successful!       puccessful         The connection is up on the selected interface.       OK       OK			
Failure Reason(s)       Recommended Action(s)			
Start Save Report Close Help			

## Troubleshoot

The Output Interpreter Tool (registered customers only) (OIT) supports certain **show** commands. Use the OIT to view an analysis of **show** command output.

Note: Refer to Important Information on Debug Commands before you issue debug commands.

You can use these options in order to troubleshoot:

• Choose **Help** > **About this Router** in order to view the hardware and software details of the router.

Device Information				
Cisco 2811				
- Hardware Details				
Model Type:	Cisco 2811			
Available / Total Memory(MB):	66/256 MB			
Total Flash Capacity:	61 MB			
- Software Details				
IOS Version:	12.4(24)T3			
IOS Image:	c2800nm-adventerprisek9-mz.124-24.T3.bin			
Hostname:	Router2811			
Feature Availability: 🥝 IP 🛛 🔵 Firewall 🌑 VPN 🌑 IPS 🔍 NAC				
	Close			

• The **Help** option provides information about the various available options in the SDM for the configuration of routers.



## **Password Recovery Procedure for Router**

The user can change the router's user name and password through Cisco CP. Use this procedure in order to recover the password.

Perform these steps in order to change the user name and password of the router:

- 1. Create a new temporary user account, and then log in to the temporary user account.
- 2. Change the user name and password of the main user account (that is, the user account of the router on which you want to change the user name and password) in your Cisco CP.
- 3. Log out from the temporary account and log in to the main user account.
- 4. Delete the temporary user account after you change the password of the main account.

# **Related Information**

- Cisco Configuration Professional Quick Start Guide
- Cisco Product Support Page Routers
- NAT Support Page
- Technical Support & Documentation Cisco Systems

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